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PATENT APPLICATION  
CH8025  
WW-5619

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

|                                |   |            |      |
|--------------------------------|---|------------|------|
| APPLICATION OF                 | ) | GROUP NO.: | 1623 |
| MEINOLF BRACKHAGEN ET AL       | ) |            |      |
| SERIAL NUMBER: 10/781,230      | ) |            |      |
| FILED: FEBRUARY 19, 2004       | ) |            |      |
| TITLE: WATER-DISPERSIBLE POLY- | ) |            |      |
| SACCHARIDE DERIVATIVES OF      | ) |            |      |
| REDUCED GLYOXAL CONTENT,       | ) |            |      |
| AND A PROCESS FOR DECREAS-     | ) |            |      |
| ING THE GLYOXAL CONTENT        | ) |            |      |
| IN GLYOXAL-CROSSLINKED         | ) |            |      |
| POLYSACCHARIDE DERIVATIVES     | ) |            |      |

**INFORMATION DISCLOSURE STATEMENT**  
**UNDER 37 C.F.R. 1.97(b)**

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This disclosure statement under 37 CFR 1.97 & 1.98 is submitted before the first Office Action in order that the Patent and Trademark Office may consider the relevancy of certain information to the invention described and claimed in the subject application, and in compliance with the regulations concerning information disclosure statements. Enclosed are copies of the following:

- a) the foreign documents and articles described in the above-identified application listed on the attached Form PTO 1449,

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an enveloped addressed to: Commissioner for Patents, Alexandria, VA 22313-1450 8/10/04  
Date

Joseph C. Gil, Reg. No. 26,602  
Name of applicant, assignee or Registered Representative

[Signature]  
Signature  
August 10, 2004  
Date

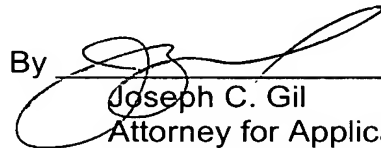
- b) the Search Report received in the corresponding application pending in the European Patent Office; and an English language translation thereof; and
- c) the foreign document cited by the European Patent Office in the Search Report listed on the attached Form PTO 1449.

This Information Disclosure Statement should not be construed as a representation that a search has been made, that additional information material to the examination of this application does not exist, that any reference mentioned herein constitutes prior art, or that the references listed, severally or in any combination with one another or with any other information, are believed to render any claim in the subject application prima facie unpatentable.

Respectfully submitted,

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By

  
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Joseph C. Gil  
Attorney for Applicants  
Reg. No. 26,602

|                           |  |                                       |                          |
|---------------------------|--|---------------------------------------|--------------------------|
| Form PTO-449<br>Rev. 7-80 | U.S. Department of Commerce<br>Patent and Trademark Office<br><b>LIST OF PRIOR ART CITED BY APPLICANT</b><br>(Use Several Sheets If Necessary) | Atty. Docket No.<br>CH8025/WW-5619    | Serial No.<br>10/781,230 |
|                           |  | Applicant<br>Meinolf Brackhagen et al |                          |
|                           |  | Filing Date<br>February 19, 2004      | Group<br>1623            |

## U.S. PATENT DOCUMENTS

| EXAMINER |    | DOCUMENT NUMBER | DATE     | NAME                               | CLASS             | SUBCLASS | FILING DATE IF APPROPRIATE |
|----------|----|-----------------|----------|------------------------------------|-------------------|----------|----------------------------|
|          | AA | 2,879,268       | 03/24/59 | Jullander                          | 260               | 232      |                            |
|          | AB | 3,297,583       | 01/10/67 | Dierichs et al                     | 252               | 363.5    |                            |
|          | AC | 3,356,519       | 12/05/67 | Chambers et al                     | 106               | 187      |                            |
|          | AD | 4,041,234       | 08/09/77 | Maske                              | 536               | 114      |                            |
|          | AE | 4,400,502       | 08/23/83 | Majewicz                           | 536               | 87       |                            |
|          | AF | 2003/0097962 A1 | 05/29/03 | (Bel. to corresp. to WO Hild et al | 03/011960)<br>106 | 162.81   |                            |
|          | AG |                 |          |                                    |                   |          |                            |
|          | AH |                 |          |                                    |                   |          |                            |
|          | AI |                 |          |                                    |                   |          |                            |
|          | AJ |                 |          |                                    |                   |          |                            |
|          | AK |                 |          |                                    |                   |          |                            |

## FOREIGN PATENT DOCUMENTS

|  |    | DOCUMENT NUMBER | DATE     | COUNTRY   | CLASS | SUBCLASS | TRANSLATION |     |
|--|----|-----------------|----------|---|-------|----------|-------------|-----|
|  |    |                 |          |   |       |          | Yes         | No* |
|  | AL | 1 518 213       | 05/22/69 | Germany (Abstract attached)                         |       |          |             | X   |
|  | AM | 1 719 445       | 06/18/70 | Germany (Abstract attached)                         |       |          |             | X   |
|  | AN | 1 465 934       | 03/02/77 | (Bel. to corresp. to DE 25 35 311)<br>Great Britain |       |          |             |     |
|  | AO |                 |          |   |       |          |             |     |
|  | AP |                 |          |   |       |          |             |     |

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

|   |    |  |
|---|----|--|
|   | AR | Ullmann's Encyclopedia of Industrial Chemistry, Vol. 5, revised 5 <sup>th</sup> edition (month unavailable) 1986, chapter 3.2.5, pages 461, 472-473, Lothar Brandt et al, "Cellulose Ethers" |
|   | AS | Recl. Trav. Chim. Pays-Bas. 109, July/August 1990, pages 419-424,<br>Farid Hamed Sangsari et al, "Competitive hemiacetalization and acetalization: cross-linking of cellulose by glyoxal"    |
|   | AT | Analytical Chemistry, Vol 34 (4), April 1962, pages 505-508, Eugene Sawicki et al, "A Comparison of Methods for Spot Test Detection and Spectrophotometric Determination of Glyoxal"         |
| EXAMINER  |    | DATE CONSIDERED  |
| EXAMINER Initial if references considered, whether or not citation is in conformance with MPEP 609: Draw line through if not in conformance and not considered. Include copy of this form with next communication to applicant. |    |  |

Neither English Language Equivalent nor an English Language Translation is available.

|                            |  |                                       |                          |
|----------------------------|--|---------------------------------------|--------------------------|
| Form PTO 1449<br>Rev. 7-80 | U.S. Department of Commerce<br>Patent and Trademark Office<br><b>LIST OF PRIOR ART CITED BY APPLICANT</b><br>(Use Several Sheets If Necessary) | Atty. Docket No.<br>CH8025/WW-5619    | Serial No.<br>10/781,230 |
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|---------------------|----|-----------------|------|------|-------|----------|-------------------------------|
|                     | AA |                 |      |      |       |          |                               |
|                     | AB |                 |      |      |       |          |                               |
|                     | AC |                 |      |      |       |          |                               |
|                     | AD |                 |      |      |       |          |                               |
|                     | AE |                 |      |      |       |          |                               |
|                     | AF |                 |      |      |       |          |                               |
|                     | AG |                 |      |      |       |          |                               |
|                     | AH |                 |      |      |       |          |                               |
|                     | AI |                 |      |      |       |          |                               |
|                     | AJ |                 |      |      |       |          |                               |
|                     | AK |                 |      |      |       |          |                               |

**FOREIGN PATENT DOCUMENTS**

|  |    | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | TRANSLATION |     |
|--|----|-----------------|------|---------|-------|----------|-------------|-----|
|  |    |                 |      |         |       |          | Yes         | No* |
|  | AL |                 |      |         |       |          |             |     |
|  | AM |                 |      |         |       |          |             |     |
|  | AN |                 |      |         |       |          |             |     |
|  | AO |                 |      |         |       |          |             |     |
|  | AP |                 |      |         |       |          |             |     |

**OTHER PRIOR ART** (Including Author, Title, Date, Pertinent Pages, Etc.)

|   |   |
|---|---|
| AR  | Cefic, Cellulose ether group, September 2002, "Method for the determination of glyoxal content in cellulose ethers"   |
| AS  | Ind. Eng. Chem. Anal. Ed. 18, (month unavailable) 1946, pages 500-504, Paul W. Morgan, "Determination of Ethers and Esters of Ethylene Glycol"  |
| AT  | Can. J. Res. Vol. 25, Sec. B (month unavailable) 1947, pages 485-489, R.U. Lemieux et al, "Quantitative Estimation as Acetic Acid of Acetyl, Ethylidene, Ethoxy, and $\alpha$ -Hydroxyethyl Groups" |
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